

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026876**Date Inspected:** 14-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 13W/14W/D2 (Exterior)
2. 13W/14W/H R2 (Exterior)
3. 13W/14W/D1 Repair (Exterior)

1. 13W14W/D2 (Exterior)

This QA Inspector observed at random intervals, ABF qualified welder Jeremy Dolman (ID 5042) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a "Bug-O" motorized rail system with a magnetic base attached in the (4G) overhead position on the underside of bottom plate "D2", from 0mm – 7500mm at 13W/14W of the OBG. This QA Inspector observed QC Inspector William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3110-4. The parameters were recorded as (A=250/V=23.2/TS=174/HI=2.0).

This joint is a Seismic Performance Critical Member (SPCM).

2. 13W/14W/H R2 (Exterior)

This QA Inspector randomly observed QC Inspector William Sherwood perform a magnetic particle

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inspection of the excavation on splice plate “H” section 13W/14W. The dimensions of the excavation were recorded as; y + 710 (depth/15mm, width/30mm, length/130mm). This QA Inspector observed that Mr. Sherwood found no rejectable indications.

13W/14W/H Repair (Exterior)

This QA Inspector randomly observed ABF qualified welder Hua Qiang Huang (Welder ID 2930) performing the repair welding operation of an ultrasonic rejectable indication as per the Shielded Metal Arc Welding (SMAW) process in the (3G) vertical position on OBG splice plate “H” 13W/14W. The excavated area was as noted as a Critical Weld Repair (CWR) and at the time of this report; the procedure is pending the Engineer’s approval. This QA Inspector observed QC Inspector Mr. William Sherwood verify that the preheat temperature was at the minimum of 325 Degrees F and that the welding parameters (Amps, Volts, and Travel Speed) were in accordance with WPS D1.5 - 1004 Repair.

This joint is a Seismic Performance Critical Member (SPCM).

13W/14W/D Repair (Exterior)

This QA Inspector randomly observed ABF welder Wai Kit Lai (Welder ID 2953) performing the repair welding operation of an ultrasonic indication as per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on “D2” at y + 7750. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector William Sherwood verify the preheat temperature and that the welding parameters (Amps=135) were in accordance with WPS D1.5–1004- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications. Upon completion of the repair, a thermal induction blanket was placed over the area for Post Weld Heat Treatment (PWHT) at 450 degrees F for 1 hour.

This joint is a Seismic Performance Critical Member (SPCM).

QC Ultrasonic Inspection

This QA Inspector randomly observed QC Inspector Mr. Jesse Cayabyab perform a R1 ultrasonic inspection of the repaired area on OBG bottom plate section 13W/14W at weld location D1. This QA Inspector observed that Mr. Cayabyab detected three (3) rejectable ultrasonic indications at “Y” location 7240 mm (depth/17mm, length/15mm), “Y” 7670 (depth/21mm, length/20mm) and “Y” 8640 (depth/12mm, length/120mm). The deck plate section is 30 mm to 35 mm thick. These locations were within the original indication #13 Critical Weld Repair (CWR). This QA Inspector noted that at the time of this report; the procedure is pending the Engineer’s approval.

This joint is a Seismic Performance Critical Member (SPCM).

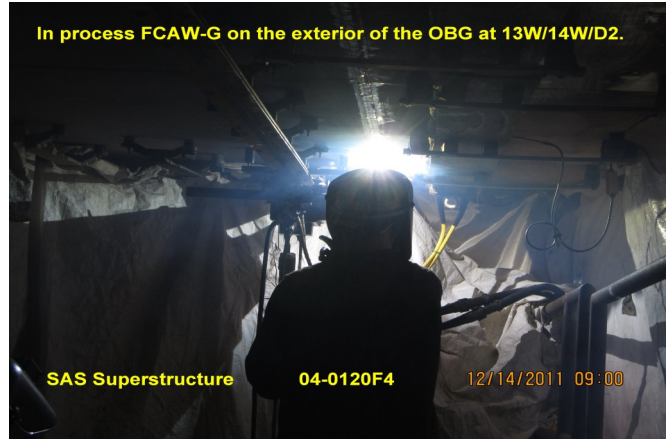
Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
